

5'	9	18	27	36	45	54
TTC GTG AAG CAC TCC ATG GAG CAT GTG TCA ATG GCC TGT GTC CAC CTG GCT TCC						
63	72	81	90	99	108	
AAG ATA GAA GAG GCC CCA AGA CGC ATA CGG GAC GTC ATC AAT GTG TTT CAC CGC						
117	126	135	144	153	162	
CTT CGA CAG CTG AGA GAC AAA AAA TAA TCG TTA TGT ACC TTC AGG TGT TAG AGT						
171	180	189	198	207	216	
GTG AGC GTA ACC AAC ACC TGG TCC AGA CCT CAT GGG TAG CCT CTG AGG GTA AGT						
225	234	243	252	261	270	
GAC TAA GAC TTC TCC TCT GCT GTC CAA GCG CTT TGG TGC AGG GAC AGC GGC ATC						
279	288	297	306	315	324	
TTC AGC CAA TCC AGT GCA GGC TCT CCA CCG AAG GCT GGC TCT AGA CTG GTG ACC						
333	342	351	360	369	378	
CCT TGT TGA AAT GGG ACA GTT GGC AGC GGC TCT GAT GAG CCC GAG AAG AGG CCT						
387	396	405	414	423	432	
GCC CTT GGG TGC GGA GTC TCC CTC CGC ACG ATG CTC CCA CGC GTC CAA CTT GCA						
441	450	459	468	477	486	
CCC AAG GGG CTT TTC CCT CTT CCA AGT GGA CTC CTT CAA GGA AGC TGC AGC TCG						

FIGURE 1A

495	504	513	522	531	540
GTC AGC AGA GAA GGG GCC TGC CGC CAG CGC GGA GGA AGA GGA ACC					
549	558	567	576	585	594
CAA GAG GAT GGC TTG TCT CCC AGC AGC CAC ACC GGC TTT GTG CTC AGC CAG TTC					
603	612	621	630	639	648
ATT TGA GTT TGC ATG TTT CTC TGC ACT ATG GAT TTT GAG CAT TTA GAT TTC TTT					
657	666	675	684	693	702
AAT CAA AAG CGT TTT AGT GAC TCC AGT AGA CAT TTT CTT TCT GAG GCA TCG TGC					
711	720	729	738	747	756
TTT GCA TGA GAG CAG GCC AAG GTT GAG GGG AAA AGT AAA GTT AAA GTC GGT TCT					
765	774	783	792	801	810
CTT TCA TAG CAA CAC GTA TTG TCT GAC ATT CAG CCA GCT TTT TTT TCT AAT					
819	828	837	846	855	864
AAT TTC TGT GCC TTT CTG TCC TGT ATT TAC TGT ATT TAG AAA AAG CAG CTA GAA					
873	882	891	900	909	918
TAT TTC TCC ATT AAC TCT TGA GAT TCA CAG GAC TGT CTA GCT CTG AGT CCT AGC					
927	936	945	954	963	972
AAT AGA CTC CTT AGA GGA GTA GTA CGT TTA TCT AGA TTT TCT CTA GAT AAT GCA					

FIGURE 1B

981	990	999	1008	1017	1026
GGC GGA AGA CCT GGG TTC CCG GGT GGG GCA TTG CAG TTC TTC CTG TGT TTG GCT					
1035	1044	1053	1062	1071	1080
TCC AGG AAT TAC ATG AAC GAC AGC CTT CGC ACC GAC GTC TTC GTG CGG TTC CAG					
	M N D S L R T D V F R Q				
1089	1098	1107	1116	1125	1134
CCA GAG AGC ATC GCC TGT GCC TGC ATT TAT CTT GCT GCC CGG ACG CTG GAG ATC					
P E S I A C A C I Y L A A R T L E I					
1143	1152	1161	1170	1179	1188
CCT TTG CCC AAT CGT CCC CAT TGG TTT CTT TTG TTT GGA GCA ACT GAA GAA GAA					
P L P N R P H W F L L F G A T E E E					
1197	1206	1215	1224	1233	1242
ATT CAG GAA ATC TGC TTA AAG ATC TTG CAG CTT TAT GCT CGG AAA AAG GTT GAT					
I Q E I C L K I L Q L Y A R K K V D					
1251	1260	1269	1278	1287	1296
CTC ACA CAC CTG GAG GGT GAA GTG GAA AAA AGA AAG CAC GCT ATC GAA GAG GCA					
L T H L E G E V E K R K H A I E A					
1305	1314	1323	1332	1341	1350
AAG GCC CAA GCC CGG GGC CTG TTG CCT GGG GGC ACA CAG GTG CTG GAT GGT ACC					
K A Q A R G L L P G G T Q V L D G T					

FIGURE 1C

1359	1368	1377	1386	1395	1404
TCG GGG TTC TCT CCT GCC CCC AAG CTG GTG GAA TCC CCC AAA GAA GGT AAA GGG					
S G F S P A P A P K L V E S P K E G K G					
1413	1422	1431	1440	1449	1458
AGC AAG CCT TCC CCA CTG TCT GTG AAG AAC ACC AAG AGG AGG CTG GAG GGC GCC					
S K P S P L S V K N T K R R L E G A					
1467	1476	1485	1494	1503	1512
AAG AAA GCC AAG GCG GAC AGC CCC GTG AAC GGC TTG CCA AAG GGG CGA GAG AGT					
K K A K A D S P V N G L P K G R E S					
1521	1530	1539	1548	1557	1566
CGG AGT CGG AGC CGG AGC CGT GAG CAG AGC TAC TCG AGG TCC CCA TCC CGA TCA					
R S R S R S R E Q S Y S R S P S R S					
1575	1584	1593	1602	1611	1620
GCG TCT CCT AAG AGG AGG AAA AGT GAC AGC GGC TCC ACA TCT GGT GGG TCC AAG					
A S P K R R R K S D S G S T S G G S K					
1629	1638	1647	1656	1665	1674
TCG CAG AGC CGC TCC CGG AGC AGG AGT GAC TCC CCA CCG AGA CAG GCC CCC CGC					
S Q S R S R S R S D S P P P R Q A P R					
1683	1692	1701	1710	1719	1728
AGC GCT CCC TAC AAA GGC TCT GAG ATT CGG GGC TCC CGG AAG TCC AAG GAC TGC					
S A P Y K G S E I R G S R K S K D C					

FIGURE 1D

1737	1746	1755	1764	1773	1782
AAG TAC CCC CAG AAG CCA CAC AAG TCT CGG AGC CGG AGT TCT TCC CGT TCT CGA	K Y P Q K P H K S R S R S S R S R				
1791	1800	1809	1818	1827	1836
AGC AGG TCA CGG GAG CGG GCG GAT AAT CCG GGA AAA TAC AAG AAG AAA AGT CAT	S R S R E R A D N P G K Y K K S H				
1845	1854	1863	1872	1881	1890
TAC TAC AGA GAT CAG CGA CGA GAG CGC TCG AGG TCG TAT GAA CGC ACA GGC CGT	Y Y R D Q R R E R S R S Y E R T G R				
1899	1908	1917	1926	1935	1944
CGC TAT GAG CGG GAC CAC CCT GGG CAC AGC AGG CAT CGG AGG TGA GGC GGG GTT	R Y E R D H P G H S R H R R				
1953	1962	1971	1980	1989	1998
GCA GTG ACT GGT GGC CGC AAG CCC TTC CCT GGG GAG TAC CTG ATG GCT GCC CTT					
2007	2016	2025	2034	2043	2052
TGA CCC CCG GTG GCT GCC CTT TGA CCC CCG GGT GTG CTC TCA GCG CAA GTG GTC					
2061	2070	2079	2088	2097	2106
CTA GAA CAG GAT TCT TTT TGG AAA TGT CTG TCG ACT GGA CCT TGG TGG ATT TGG					
2115	2124	2133	2142	2151	2160
AAA TGG AAC TGA GGG ACC GGT GAC ACG TGC TTC AGA CCG GTC TGG GGT GCG GCG					

FIGURE 1E

2169	2178	2187	2196	2205	2214
CAC ACC TGG GCC CGT GCA GGG CTC AGC TCG GCA GCA GCT CTG AGG GCA GCT CAA					
2223	2232	2241	2250	2259	2268
TGA AAA AGT GAA TGC ACA CGC CCT TGT TGG CGT GGC CTG GCA TGG CCT GGT GCT					
2277	2286	2295	2304	2313	2322
ATC GGC AGC CGC TCT CCA CTC CCC GAC TGA TAC TCA ATT ACG TGA AGC CAA GAA					
2331	2340	2349	2358	2367	2376
AGA TGA TTT TTA GAA CCT TTG CCT ATA TTA GGT TGT ACT TAT GTA CAT ATT TTG					
2385	2394	2403	2412	2421	2430
CAG TGT TTC ACA GGA GAA AGT GGC CTT AAC TGC CCC TTA TTC TCT CTC CAC GTT					
2439	2448	2457	2466	2475	2484
GTA AAT AAA CAT GTG TTT AAT ACA AGT TAA AGC TAT GTA TGA AAA CTC AGA ACT					
2493	2502	2511	2520	2529	2538
TGA ATC CCG TCA GCT TAA AAC TTG TGT AGG GAA TCC TGA CTT TTA AAA TGT GAG					
2547	2556	2565	2574	2583	2592
GGT ATT TGG ATC TGT GTT GAA AGT CGT ATA TTT TTA TCT GTG CGG TGC TGA GTG					
2601	2610	2619	2628	2637	2646
CAG GCC ACC AGC TCC TAA ATA GAG GTT CCC TAT ATG CGC GTA TGA CAT GGT GAA					

FIGURE 1F

2655	2664	2673	2682	2691	2700
TAA ACA CAA CTC TCT CCA CTC AGG ACA TCC GGA GCG TTA TGG ACG TGG TAG GTG					
2709	2718	2727	2736	2745	2754
GTC GTT CTG TGT GCT TGT GAA AGT GTC CAG GCG TGT GCA CAG CCA GTG CGC CCA					
2763	2772	2781	2790	2799	2808
CTT CCG GGC TCC TTG CTC CCT GCT GTA CTG AAG TTT TGG ATT TTG CAT CCA ATC					
2817	2826	2835	2844	2853	2862
CTG TGT GCC TGC CCT TCT GCC GAA GCT TGT GAG GGG CCT GAG TCC TCT GCC CAT					
2871	2880	2889	2898	2907	2916
CAG GAT GAC AGG CTC CTT CCT GCA GGG CCA TAG GAG GGA AGT TTT GGA AAC ACA					
2925	2934	2943	2952	2961	2970
GAA TGA TTC CAA GGT GCT CTC GTT CCT GAG GGG GAC TGG TTT GTA ACC CAT GAC					
2979	2988	2997	3006	3015	3024
ATC TGT GGG CGA GAG AGG CAG CTG GGA GCA GGA CAC TTG GAG GGT CAC CCC ACG					
3033	3042	3051	3060	3069	3078
GGG GTG GCA CCT GCA CTC TGA GTG CCC CCC ACT GTC ATC AGC TGC CTC TTA CCG					
3087	3096	3105	3114	3123	3132
TGG ACA CAG TTT TGG TTT TGG GGA CTA GGG GGC CCC ACT CCT GGT GGT ACC GTT					

FIGURE 1G

3141 3150 3159 3168 3177 3186
TGG ACT TAC TAG GGC AGT GGG ACA TAT AGG CCG GGG CTA GTG GGA TAA CGG GGA

3195 3204 3213 3222 3231 3240
GTT ACG CCT GAT GAC TTT TTT GAT GGA ATC CTG CAT TAG ATA GCT GGT GGG ACC

3249 3258 3267 3276 3285 3294
CCC CCC TCA GAA TTG GGG AAC TGA GGA GAC TCC AGG GAG GGT GTC CTT CCA GGG

3303 3312 3321 3330 3339 3348
AGA GCA GCT ATG AGG GGC CCC CTA GCT TCC TGT GCC TGG AAG TAA GAG AAC CAG

3357 3366 3375 3384 3393 3402
TAA AGG GCC ATA CAC ACC TGT ACC CAA GAG ACC GCT CTC CAT TTG CTT TCT TTT

3411 3420 3429 3438 3447 3456
TTT ACT AAA TAA TTG TAA AAT ATT ATG ATG ACA TAA AGA ACC ATT TAA GGC CAA

AAA AAA AA 3'

FIGURE 1H

10	19	28	37	46	55
5' GCCT CCC TGT CCC CCG ACC CTC TTT TGA TGC CTC AGC AAG TGA AGA GGA GGA AGA					
64	73	82	91	100	109
AGA GGA GGA GGA GGA TGA AGA TGA AGA GGA AGT GGC AGC TTG GAG GCT					
118	127	136	145	154	163
GCC CCC AAG ATG GAG TCA GCT GGG AAC CTC CCA GCG GCC CCG CCC TTC CCG CCC					
172	181	190	199	208	217
CAC TCA TCG AAA AAC CTG CTC ACA GCG CCG CCG AGC CAT GAG AGC CTT CCG					
226	235	244	253	262	271
GAT GCT GCT CTA CTC AAA AAG CAC CTC GCT GAC ATT CCA CTG GAA GCT TTG GGG					
280	289	298	307	316	325
GCG CCA CCG GGG CCG GCG GCG CCT CGC ACA CCC CAA GAA CCA TCT TTC ACC					
334	343	352	361	370	379
CCA GCA AGG GGG TGC GAC GCC ACA GGT GCC ATC CCC CTG TTG TCG TTT TGA CTC					
388	397	406	415	424	433
CCC CCG GGG GCC ACC TCC ACC CCG GCT GGG TCT GCT AGG TGC TCT CAT GGC TGA					
442	451	460	469	478	487
GGA TGG GGT GAG AGG GTC TCC ACC AGT GCC CTC TGG GCC CCC CAT GGA GGA AGA					

FIGURE 2A

496	TGG	ACT	CAG	GTG	GAC	TCC	AAA	GTC	TCC	TCT	GGA	CCC	TGA	CTC	GGG	CCT	CCT	TTC	541
550	ATG	TAC	TCT	GCC	CAA	CGG	TTT	TGG	GGG	ACA	ATC	TGG	GCC	AGA	AGG	GGA	GCG	CAC	595
	M	Y	S	A	Q	R	F	W	G	T	I	W	A	R	R	G	A	H	
604	TTG	GCA	CCC	CCT	GAT	GCC	AGC	ATC	CTC	ATC	AGC	AAT	GTG	TGC	AGC	ATC	GGG	GAC	649
	L	A	P	P	D	A	S	I	L	I	S	N	V	C	S	I	G	D	
658	CAT	GTG	GCC	CAG	GAG	CTT	TTT	CAG	GGC	TCA	GAT	TTG	GGC	ATG	GCA	GAA	GAG	GCA	703
	H	V	A	Q	E	L	F	Q	G	S	D	L	G	M	A	E	E	A	
712	GAG	AGG	CCT	GGG	GAG	AAA	GCC	GGC	CAG	CAG	CAC	AGC	CCC	CTG	CGA	GAG	GAG	GTG	757
	E	R	P	G	E	K	A	G	Q	H	S	P	L	R	E	E	H	V	
766	ACC	TGC	GTA	CAG	AGC	ATC	TTG	GAC	GAA	TTT	CTT	CAA	ACG	TAT	GGC	AGC	CTC	ATA	811
	T	C	V	Q	S	I	L	D	E	F	L	Q	T	Y	G	S	L	I	
820	CCC	CTC	AGC	ACT	GAT	GAG	GTA	GTA	GAG	AAG	CTG	GAG	GAC	ATT	TTC	CAG	CAG	GAG	865
	P	L	S	T	D	E	V	V	E	K	L	E	D	I	F	Q	Q	E	

FIGURE 2B

874	883	892	901	910	919
TTT TCC ACC CCT TCC AGG AAG GGC CTG GTG TTG CAG CTG ATC CAG TCT TAC CAG					
F S T P S R K G L V L Q L I Q S Y Q					
928	937	946	955	964	973
CGG ATG CCA GGC AAT GCC ATG GTG AGG GGC TTC CGA GTG GCT TAT AAG CGG CAC					
R M P G N A M V R G F R V A Y K R H					
982	991	1000	1009	1018	1027
GTG CTG ACC ATG GAT GAC TTG GGG ACC TTG TAT GGA CAG AAC TGG CTC AAT GAC					
V L T M D D L G T L Y G Q N W L N D					
1036	1045	1054	1063	1072	1081
CAG GTG ATG AAC ATG TAT GGA GAC CTG GTC ATG GAC ACA GTC CCT GAA AAG GTG					
Q V M N M Y G D L V M D T V P E K V					
1090	1099	1108	1117	1126	1135
CAT TTC TTC AAT AGT TTC TTC TAT GAT AAA CTC CGT ACC AAG GGT TAT GAT GGG					
H F F N S F F Y D K L R T K G Y D G					
1144	1153	1162	1171	1180	1189
GTG AAA AGG TGG ACC AAA AAC GTG GAC ATC TTC AAT AAG GAG CTA CTG CTA ATC					
V K R W T K N V D I F N K E L L I					
1198	1207	1216	1225	1234	1243
CCC ATC CAC CTG GAG GTG CAT TGG TCC CTC ATC TTC TCT GTT GAT GTG AGG CGA CGC					
P I H L E V H W S L I S V D V R R R					

FIGURE 2C

1252	1261	1270	1279	1288	1297
ACC ATC ACC TAT TTT GAC TCG CAG CGT ACC CTA AAC CGC CGC TGC CCT AAG CAT	T I T Y F D S Q R T L N R R C P K H				
1306	1315	1324	1333	1342	1351
ATT GCC AAG TAT CTA CAG GCA GAG GCG GTA AAG AAA GAC CGA CTG GAT TTC CAC	I A K Y L Q A E A V K K D R L D F H				
1360	1369	1378	1387	1396	1405
CAG GGC TGG AAA GGT TAC TTC AAA ATG AAT GTG GCC AGG CAG AAT AAT GAC AGT	Q G W K G Y F K M N V A R Q N N D S				
1414	1423	1432	1441	1450	1459
GAC TGT GGT GCT TTT GTG TTG CAG TAC TGC AAG CAT CTG GCC CTG TCT CAG CCA	D C G A F V L Q Y C K H L A L S Q P				
1468	1477	1486	1495	1504	1513
TTC AGC TTC ACC CAG CAG GAC ATG CCC AAA CTT CGT CGG CAG ATC TAC AAG GAG	F S F T Q Q D M P K L R R Q I Y K E				
1522	1531	1540	1549	1558	1567
CTG TGT CAC TGC AAA CTC ACT GTG TGA GCC TCG TAC CCC AGA CCC CAA GCC CAT	L C H C K L T V				
1576	1585	1594	1603	1612	1621
AAA TGG GAA GGG AGA CAT GGG AGT CCC TTC CCA AGA AAC TCC AGT TCC TTT CCT					

FIGURE 2D

1630	1639	1648	1657	1666	1675
CTC TTG CCT CTT CCC ACT CAC TTC CCT TTG GTT TTT CAT ATT TAA ATG TTT CAA					
1684	1693	1702	1711	1720	1729
TTT CTG TAT TTT TTT TTC TTT GAG AGA ATA CTT GTT GAT TTC TGA TGT GCA GGG					
1738	1747	1756	1765	1774	1783
GGT GGC TAC AGA AAA GCC CCT TTC TTC CTC TGT TTG CAG GGG AGT GTG GCC CTG					
1792	1801	1810	1819	1828	1837
TGG CCT GGG TGG AGC AGT CAT CCT CCC CCT TCC CCG TGC AGG GAG CAG GAA ATC					
1846	1855	1864	1873	1882	1891
AGT GCT GGG GGT GGT GGG CGG ACA ATA GGA TCA CTG CCT GCC AGA TCT TCA AAC					
1900	1909	1918	1927	1936	1945
TTT TAT ATA TAT ATA TAT ATA TAT ATA TAT ATA TAT ATA TAT ATA TAT					
1954	1963	1972	1981	1990	
ATA TAA ATA TAT AAA TGC CAC GGT CCT GCT CTG GTC AAT AAA GAT C 3'					

FIGURE 2E

137	L	E	G	A	K	K	A	D	S	P	V	N	G	L	P	K	G	R	E	S	R	S	R	S	R	E	1281694				
1	M	E	G	P	K	K	A	Q	G	H	S	P	V	N	G	L	L	K	G	Q	E	S	R	S	Q	S	R	S	R	E	GI 1276645
167	Q	S	Y	S	R	S	P	S	R	S	A	S	P	K	R	R	K	S	D	S	G	S	T	S	G	G	S	K	S	Q	1281694
31	Q	S	Y	S	R	S	P	S	R	S	A	S	P	K	R	R	K	S	D	S	G	S	T	S	G	G	S	K	S	Q	GI 1276645
197	S	R	S	R	S	S	D	S	P	P	R	Q	A	P	R	S	A	P	Y	K	G	S	E	I	R	G	S	R	K	1281694	
61	S	R	S	R	S	S	D	S	P	P	R	Q	V	H	R	G	A	P	Y	K	G	S	E	V	R	G	S	R	K	GI 1276645	
227	S	K	D	C	K	Y	-	P	Q	K	P	H	K	S	R	S	R	S	S	S	R	S	R	S	R	S	R	E	R	A	1281694
91	S	K	D	C	K	Y	L	T	Q	K	P	H	K	S	R	S	R	S	S	S	R	S	R	S	R	S	R	E	R	T	GI 1276645
256	D	N	P	G	K	Y	K	K	S	H	Y	Y	R	D	Q	R	R	E	R	S	R	S	Y	E	R	T	G	R	R	1281694	
121	D	N	S	G	K	Y	K	K	S	H	Y	Y	R	D	Q	R	R	E	R	S	R	S	Y	E	R	T	G	H	R	GI 1276645	
286	Y	E	R	D	H	P	G	H	S	R	H	R	R	1281694																	
151	Y	E	R	D	H	P	G	H	S	R	H	R	R	CDRI	S	G	G	C	P	W	S	L	P	V	G	H	T	GI 1276645			
298	L	A	S	V	A	L	1281694																								
181	L	A	S	V	A	L	GI 1276645																								

FIGURE 3